

Claims

[c1] 1. A GUI for prescribing medical imaging sessions comprising:
a plurality of modularizing selectors configured to facilitate workflow through
an imaging application;
a plurality of status indicators, each status indicator correlating with a
modularizing selector and configured to display at least one of selection of the
modularizing selector and completion of tasks associated with the modularizing
selector; and
a messaging module configured to automatically display messages regarding
the imaging application.

[c2] 2. The GUI of claim 1 further comprising at least two application regions and
wherein the plurality of modularizing selectors are aligned vertically in a single
application region.

[c3] 3. The GUI of claim 2 further comprising a plurality of windows corresponding in
number to the plurality of modularizing selectors, the plurality of windows
configured to present a number of scan parameters.

[c4] 4. The GUI of claim 1 further comprising at least one of a scan status indicator
and a list of components necessary to initiate scan activity.

[c5] 5. The GUI of claim 4 further comprising a messaging region and wherein the
messaging module and the at least one of the scan status indicator and the list
of components are displayed in the messaging region, and wherein the
messaging region is positioned in a lower portion of the GUI.

[c6] 6. The GUI of claim 1 wherein the messaging module includes a pop-up dialog
configured to display an invalidity of a user input.

[c7] 7. The GUI of claim 1 further comprising a plurality of application specific
selectors that upon user selection each application-specific selection is
configured to display a window specific to the imaging application and wherein
the plurality of application-specific selectors are horizontally oriented.

[c8] 8. The GUI of claim 7 wherein the plurality of application-specific selectors

include a landmark selector, a patient information selector, an advanced settings selector, and a help selector, and wherein each of application-specific selector is configured to launch a application specific window upon user selection, wherein the application specific windows include a landmark window configured to aid user positioning of a scan subject, a patient information window configured to display patient information, an advanced settings and parameters window configured to display advanced settings and parameters for the imaging application, and a help configured to display assistance information related to the imaging application.

- [c9] 9.The GUI of claim 1 having a layout configured to facilitate left-to-right and top-to-bottom MR prescription workflow to guide a user logically through a managed prescription.
- [c10] 10.A graphical workflow management tool for prescribing an MR imaging scan, the tool including a GUI configured to be visually displayed on a console of a medical imaging system, the tool comprising:
 - a plurality of prescription tabs aligned vertically on the GUI;
 - a plurality of status indicators, wherein each indicator is configured to display a status of activities for a corresponding prescription tab; and
 - a plurality of context-specific tabs aligned horizontally on the GUI.
- [c11] 11.The tool of claim 10 further comprising a messaging module, the messaging module configured to display at least one of user messages, scanner information, state of current application, and components necessary to initiate a scan.
- [c12] 12.The tool of claim 11 wherein the plurality of prescription tabs are disposed generally along a left side of the GUI, wherein the plurality of context-specific tabs are disposed generally along a top region of the GUI, and wherein the messaging module is disposed generally along a bottom region of the GUI.
- [c13] 13.The tool of claim 10 further comprising a plurality of parameter windows wherein each parameter window is associated with a prescription tab and is configured to display a number of scan parameters associated with a tab.

[c14] 14. The tool of claim 13 wherein the number of scan parameters is specific to a particular imaging application and includes a set of scan parameters most important to a scan session.

[c15] 15. The tool of claim 10 having a visual appearance consistent across multiple imaging applications.

[c16] 16. An MRI apparatus to prescribe an imaging session and acquire imaging data, the MRI apparatus comprising:
a magnetic resonance imaging (MRI) system having a plurality of gradient coils positioned about a bore of a magnet to impress a polarizing magnetic field, and an RF transceiver system and an RF switch controlled by a pulse module to transmit RF signals to an RF coil assembly to acquire MR images;
a computer programmed to:
(A) receive a launch MR application command;
(B) launch an MR application;
(C) receive a number of application steps identifier; application step
(D) display a GUI on a console, the GUI having a number of tabs equal to the number of identified application steps;
(E) initiate a localizer scan for at least one localizer and display a status of the localizer scan on the GUI;
(F) receive a prescription command and acquire MR images in response to the received prescription command for an application step; and
(G) receive another prescription command and acquire MR images in response to the received another prescription command for another application step.

[c17] 17. The MR apparatus of claim 16 wherein the computer is further programmed to repeat (G) for a remaining application step.

[c18] 18. The MR apparatus of claim 16 wherein the computer is further programmed to display, on the GUI, the acquired MR images.

[c19] 19. The MR apparatus of claim 16 wherein the computer is further programmed to receive a re-prescription command for an application step and reacquire previously acquired MR images for the application step.

[c20] 20. The MR apparatus of claim 16 wherein the computer is further programmed to display a series of prescription windows on the GUI.

[c21] 21. The MR apparatus of claim 16 wherein the computer is further programmed to reposition an MR image on the GUI in response to a imaging reposition user input.

[c22] 22. The MR apparatus of claim 16 wherein the computer is further programmed to continually display a scan status on the GUI, wherein the scan status includes one of stand-by, in-progress, and completed.

[c23] 23. The MR apparatus of claim 16 wherein the number of tabs are positioned vertically on the GUI, the GUI including a number of context-specific selectors positioned horizontally along a top region thereof.

[c24] 24. The MR apparatus of claim 16 wherein the computer is further programmed to display a summary module on the GUI, the summary module enabling review of prescription commands for acquiring medical imaging data..

[c25] 25. A method for acquiring medical images comprising:
receiving a launch application instruction;
launching the application;
determining a number of prescription steps based on a received user input; and
displaying a GUI for prescribing an imaging session, the GUI having a number of vertically aligned modularizing tabs corresponding to the number of prescription steps.

[c26] 26. The method of claim 25 wherein the GUI includes a number of context-specific tabs horizontally aligned.

[c27] 27. The method of claim 26 wherein the number of context-specific tabs are arranged horizontally across a top region of the GUI.

[c28] 28. The method of claim 26 wherein the number of modularizing tabs are configured to facilitate a logical and structured workflow of prescribing a medical imaging session.

[c29] 29. The method of claim 28 wherein the number of modularizing tabs are arranged vertically along a generally left region of the GUI.

[c30] 30. The method of claim 28 further comprising displaying messages to an operator in a bottom region of the GUI.

[c31] 31. The method of claim 33 wherein the messages include at least one of scanner information, user messages, state of current application, scan times, availability of another scan, status of other scan applications, and a list of components necessary to initiate scan activity.

[c32] 32. The method of claim 28 comprising displaying a number of status indicators on the GUI, the number of status indicators configured to indicate completion of a prescription step.